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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,701	04/09/2004	Tohru Kurata	251425US6	8739

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EXAMINER
VANCHY JR, MICHAEL J

ART UNIT	PAPER NUMBER
2609	

NOTIFICATION DATE	DELIVERY MODE
08/09/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/820,701	KURATA, TOHRU	
	Examiner	Art Unit	
	Michael Vanchy Jr.	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 6 and 7 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 4. See MPEP § 608.01(n). Accordingly, the examiner has continued examination based on the two claims, claims 6 and 7, as dependent on the independent claim, claim 1.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 6 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Chinthammit et al., US 2004/0080467 A1.

Re claim 1, an image display device (Chinthammit, Fig. 2 item 14, and [0019] and [0020]), comprising: image pick-up means (Chinthammit, Abstract, "detector pair"); image display means (Chinthammit, Fig. 2 item 14, and [0019] and [0020]); detection means for detecting the position of the eyes of a face by image recognition from an

image picked-up by said image pick-up means (Chinthammit, Fig. 3 item 128); and display position alteration means for altering the position of image display by said image display means, based on the detection result of said detection means (Chinthammit, [0029]).

Re claim 6, the image display device according to any one of claims 1 through 5, further comprising: acceleration measurement means for measuring the acceleration of said image display device unit, wherein said display position alteration means alters the position of image display by said image display means based on the detection results of said detection means and the measurement results of said acceleration measurement means (Fig. 3 item 134 and [0024]).

Re claim 7, the image display device according to any of claims 1 through 6, wherein said image pick-up means is a CMOS sensor (Chinthammit, [0061]).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chinthammit et al., US 2004/0080467 A1.

Re claim 8, an image blurring prevention method, in an image display device (Chinthammit, Fig. 2 item 14, and [0019] and [0020]) having image pick-up means (Abstract, "detector pair") and image display means (Chinthammit, Fig. 2 item 14, and [0019] and [0020]), for preventing blurring of the image displayed on said image display means, comprising: a first step of detecting the position of the eyes of a face by image recognition from an image picked-up by said image pick-up means (Chinthammit, Fig. 3 item 128), and a step of altering the position of image display by said image display means, based on the detection result of said first step (Chinthammit, [0029]).

The examiner takes into account that even though "blurring prevention" is not expressly disclosed within this prior art, it would have been obvious and expected that blurring prevention is innately served through a more accurate augmented image registration process as taught by this prior art.

Re claim 2, the image display device according to claim 1, wherein said display position alteration means is a digital interpolation filter (Chinthammit, [0029]), which effects parallel movement in sub-pixel units of the display position of the image (Chinthammit, Abstract and [0054]).

Although "parallel movement" is not expressly disclosed per se, the examiner takes into account that the Kalman filter can use interpolation for the future estimation of eye position. The examiner also takes into account that the movement can be considered parallel since it would have been obvious to the examiner that detectors are in a formation of a square and account for correction of perpendicular lines.

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chinthammit et al., US 2004/0080467 A1 and further in view of Nasserbakht et al., 6,072,443.

Where as both Chinthammit et al. and Nasserbakht et al., teach of an image display device that detects the position of the users eyes, Chinthammit et al. fails to teach enlargement and reduction of the image as the person changes distances from the device. However Naserbakht et al. does:

Re claim 4, the image display device according to claim 2 or 3, further comprising: distance measurement means to measure the distance with an external object, wherein said digital interpolation filter also performs image enlargement and reduction processing based on the results of measurement of said distance measurement means (Naserbakht, 6,072,443, col. 2 line 66 to col. 3 line 4).

Therefore, taking the combined teachings of the Chinthammit et al. and Nasserbakht et al. as a whole, it would be obvious to modify Chinthammit et al. to include a process, which enlarges or reduces the image based on user position.

Re claim 5, the image display device according to claim 1, wherein said display position alteration means is a damping device which causes physical movement of said image display means (Naserbakht, 6,072,443, col. 6, lines 10-18).

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chinthammit et al., US 2004/0080467 A1 and further in view of Fernie et al., 5,933,125.

Where as both Chinthammit et al. and Fernie et al. are display devices which tracks the user's movement, Chinthammit et al. fails to teach estimating the parallel movement amount of the image at a future point in time. However Fernie et al. does:

Re claim 3, the image display device according to claim 2, wherein said digital interpolation filter estimates the parallel movement amount of the image display position at a point of time in the future that is equal to the delay time (Fernie, col. 2, lines 30-38) resulted from processing by the digital interpolation filter (Chinthammit, [0029]).

Therefore taking the combined teachings of Chinthammit et al. and Fernie et al. as a whole it would be obvious to modify Chinthammit et al. to estimate the parallel movement of the image at a future point in time.

Examiner's Note

The referenced citations made in the rejection(s) above are intended to exemplify areas in the prior art document(s) in which the examiner believed are the most relevant to the claimed subject matter. However, it is incumbent upon the applicant to analyze the prior art document(s) in its/their entirety since other areas of the document(s) may be relied upon at a later time to substantiate examiner's rationale of record. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). However, "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed...." In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Vanchy Jr. whose telephone number is (571) 270-1193. The examiner can normally be reached on Monday - Friday 7:30 am - 5:00 pm Alt. Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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